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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KEVIN McCOMBE and REMI COTE

Appeal 2008-0841
Application 09/738,786[1]
Technology Center 2100

Decided: September 9, 2008

Before LANCE LEONARD BARRY, JEAN R. HOMERE,
and STEPHEN C. SIU, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1 through 11. We have jurisdiction under 35 U.S.C. § 6(b). We reverse and enter a new ground of rejection.

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[1] Filed on Dec. 15, 2000. The real party in interest is Wind River Systems, Inc.

Appellants invented a method and system for managing a plurality of client processes that are being executed within a client task on a processor. (Spec. 2.) As depicted in Figure 4, the processor (100) includes a manager task (200) that monitors each of the client processes (220-240) within the client task (210) to ensure that the processor (100) is continuously available. (Spec. 5.) Particularly, the manager task (200) queues the client processes into the client task (210) for processing in priority order. (*Id.*) If the processor (100) cannot complete the execution of a forwarded client process (220) within a predetermined time period, the manager task (200) restarts the client task (210) to thereby kill the execution of the client process. (*Id.*)

Independent claim 1 further illustrates the invention. It reads as follows:

> 1. A system for managing a plurality of client processes, comprising:
>
> a client task within which the client processes will be executed; and
>
> a manager task running at a higher priority than the client task, the manager task queuing the client processes into the client task in priority order, wherein the manager task kills the client task when a current one of the client processes is not completed within a predetermined time period.

The Examiner relies on the following prior art:

Peters	US 6,385,637 B1	May 7, 2002 (filed Aug. 21, 1997)
Morwood	US 6,470,346 B2	Oct. 22, 2002 (filed Oct. 07, 1998)

The Examiner rejects the claims on appeal as follows:

Claims 1 through 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Morwood and Peters.

FINDINGS OF FACT

The following findings of fact (FF) are supported by a preponderance of the evidence.

Morwood

1. Morwood discloses a remote computation network that manages computation requests originating from a client process to be executed at a remote server process. (Col. 1, ll. 31-36.)

2. As depicted in Figure 2, upon the client process (12') issuing a computation request, a dispatcher process (22) running on the server process (14') receives the request, and determines which manager process (26) on the server process (14') to send the request to. (Col. 2, ll. 48-56.)

3. The manager process (26), in turn, determines the priority order in which to execute all the received requests. As shown in Figure 3, the manager process (26) creates a computation object for each received request, and puts the computation objects in the manager's waiting queue (26'). The manager process (26) then selects the highest priority computation object from its waiting queue for execution. (Col. 4, ll. 15-22, col. 8, ll. 41-48.)

4. The manager process (26) maintains the computations in various queues corresponding to the state of each object. The different states

of a computation for an object include waiting, running, completed, aborted and removed. The manager process changes the execution state of the object to reflect a change in the computation of the object. (Col. 9, ll. 10-21, col. 11, ll. 51-54.)

5. Morwood further discloses that when the computation of an object is complete, the manager process notifies the client process that the state of the object has changed to complete. However, before such computation is complete, the client process can request to remove the object from the manager's queue. Upon receiving such removal request, the manager process (26) moves the object to the removed queue, and subsequently purges the queue along with its contents including the object. (Col. 12, ll. 26-37.)

Peters

6. Peters discloses a periodic process timer for timing computer software tasks and processes in a multitasking operating system of an automatic call distributor system. (Col. 1, ll. 5-9.)

7. As shown in Figure 2, the operating system includes a task list (66) wherein each of a plurality of tasks or processes is assigned a starting time (70), an ending time (72), and a status indication (74). If the execution of a current task is not completed within the predetermined time period ranging somewhere between the beginning time and ending time, the executing task or process is suspended. (Col. 8, ll. 15-30, col. 9, ll. 6-13.)

PRINCIPLES OF LAW

OBVIOUSNESS

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

> Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1734 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) wherein evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S. Ct. at 1734 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.")

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739-40 (2007)). "One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." *KSR*, 127 S. Ct. at 1742.

The reasoning given as support for the conclusion of obviousness can be based on interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. *KSR*, 127 S. Ct. at 1740-41. *See also Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2007).

ANALYSIS

Independent claim 1 recites in relevant part a manager task that kills a client task when the execution of a client process therein is not completed within a predetermined time period. (Claims Appendix.)

Appellants argue that the combination of Morwood and Peters does not teach these limitations. (App. Br. 5-8, Reply Br. 3-7.) Particularly, Appellants argue that Morwood teaches that the manager process may move a computation object to the abort queue. However, Appellants contend that

the manager process does not itself cause the computation object to abort. Further, Appellants argue that Peters teaches suspending a process or a task if its execution is not completed within a predetermined time period. Appellants argue, however, that suspending the execution of a task causes it to be restarted at a later time, whereas killing the task causes it to be destroyed altogether to prevent it from running a loop indefinitely. (App. Br. 6-8.) Appellants therefore conclude that suspending the process teaches away from killing it, as claimed. (*Id. 7.*)

In response, the Examiner avers that the combined disclosures of Morwood and Peters teach the claimed limitations. Particularly, the Examiner finds that Morwood teaches a manager process that aborts and kills client tasks in its priority queues. Further, the Examiner finds that Peters complements Morwood by teaching suspending the task or process if its execution is not completed within a predetermined period of time. (Ans. 7-8.)

Therefore, the pivotal issue before us is whether one of ordinary skill in the art would have found sufficient rationale to combine the disclosures of Morwood and Peters to yield a manager task that kills a client task when the execution of a client process therein is not completed within a predetermined time period, as recited in independent claim 1. We answer this inquiry in the negative.

As set forth in the Findings of Fact section, Morwood discloses a manager process that maintains computation objects in its priority queues for

remote execution in a server process. (FF. 1-4.) Further, Morwood teaches that the objects are moved to corresponding queues indicative of their current statuses. (FF. 4.) Additionally, Morwood discloses that upon receiving a request from the client process to abort or remove an object from the execution queue, the manager moves the specified object to the abort or remove queue, and subsequently purges the object. (FF. 5.) Next, Peters discloses an operating system having a plurality of tasks or processes, each of which, having a predetermined period of time to be fully executed. (FF. 6-7.) If the execution of the task or process is not completed within the specified period of time, the execution of the task is suspended. (*Id.*) One of ordinary skill in the art would readily recognize that the combined disclosures of Morwood and Peters would predictably result in a manager process that suspends the execution of a task or process if it is not completed within a specified period of time. The ordinarily skilled artisan would appreciate that while Morwood teaches purging a computation object from the queue, such destruction of the object is not dependent upon the execution time of the object. Rather, it depends on a request received from the client process. Therefore, the ordinarily skilled artisan would aptly recognize that the suggested combination is devoid of any suggestion or teaching to kill a computation object, a process or a task that is not fully executed within a specified period of time. To somehow conclude that Peters' teaching of suspending an executing task that is not completed within a specified period of time would have led Morwood's manager process to destroy such

executing objects would require us to resort to unwarranted speculations. It follows that, on the record before us, Appellants have shown that the Examiner erred in concluding that the combination of Morwood and Peters renders independent claim 1 unpatentable.

Claims 2 through 11 recite the limitations at issue. It follows that, for the foregoing reasons, Appellants have shown that the Examiner erred in concluding that the combination of Morwood and Peters renders claims 2 through 11 unpatentable.

New Ground of Rejection

Using our authority under 37 C.F.R. § 41.50(b), we reject claims 1 through 11 under 35 U.S.C. § 112, second paragraph.

Independent claims 1, 6, and 11 recite in relevant part a manager task that kills the execution of a client task when a current client process is not completed within a predetermined time. However, the Specification reveals that when the client process is not completed within the predetermined time, the manager task kills the execution of a client process (not the client task) by restarting the client task. (Spec. 5, ll. 23-25). After reviewing Appellants' Specification, we are unable to ascertain the scope of the cited phrase. Therefore, we conclude that claims 1, 6, and 11 are indefinite for failing to distinctively claim the subject matter which Appellants regard as their invention.

Claims 2 through 5 and 7 through 10 are rejected for fully incorporating the deficiencies of independent claims 1, 6, and 11, by virtue of their dependency thereon.

37 C.F.R. § 41.50(b) provides that, "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellants, *WITHIN TWO MONTHS FROM THE DATE OF THE DECISION*, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 C.F.R. § 1.197 (b)) as to the rejected claims:

> (1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner …
>
> (2) *Request rehearing.* Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record …

SUMMARY

(1) We have entered a new rejection against claims 1 through 11 as being indefinite.

(2) We reverse the Examiner's decision rejecting claims 1 through 11 as being unpatentable over the combination of Morwood and Peters.

(3) Because of the new ground of rejection, our decision is not a final agency action.

CONCLUSIONS OF LAW

Appellants have shown that the Examiner erred in concluding that claims 1 through 11 are unpatentable under 35 U.S.C. § 103. Claims 1 through 11 are indefinite.

DECISION

We reverse the Examiner's decision rejecting claims 1 through 11, and enter a new ground of rejection against these claims.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

REVERSED -- 37 C.F.R § 41.50(b)

BARRY, *Administrative Patent Judge, concurring.*

I concur wholeheartedly with my colleagues and write separately to address what I believe to be the Appellants" misperception of the law on teaching away.

I. ISSUE

I agree with the following characterization by Judge Homere of one of the Appellants' arguments.

> Appellants argue that Peters teaches suspending a process or a task if its execution is not completed within a predetermined time period. Appellants argue, however, that suspending the execution of a task causes it to be restarted at a later time, whereas killing the task causes it to be destroyed altogether to prevent it from running a loop indefinitely. (App. Br. 6-8.) Appellants therefore conclude that suspending the process teaches away from killing it, as claimed. (*Id. 7.*)

Such an argument raises the issue of whether the Appellants have shown that Peters' suspending of a process teaches away from the claimed killing of the process.

II. FINDINGS OF FACT

I make the following findings of fact ("FFs").

1. In Peters "[a] periodic process timer is incorporated into a multi-tasking operating system of an automatic call distributor system." (Abs., ll. 1-2.)

2. "Referring now to FIG. 2 [of Peters], a simplified software block diagram of the operating system 12 is shown generally." (Col. 7, ll. 57-58.)

3. Figure 2's diagram shows that the operating system 12 includes "a control and data collection routine 52 . . . ." (*Id.* l. 60.)

4. For its part "[t]he control and data collection routine 52 includes a task list 66 that lists every task or process that is to be timed. Preferably, all tasks are listed." (Col. 8, ll. 14-17.)

5. "[I]mmediately prior to execution of a new task, the hardware timer device 42 is initialized and activated. This permits the hardware timer device 42 to begin counting." (Col. 9, ll. 5-7.)

6. "The task or process then begins executing for a predetermined period of time, for example ten to twenty milliseconds." (*Id.* ll. 7-9.)

7. "After a predetermined amount of time during which the selected process is permitted to execute, as determined by the time-slicing scheme of the operating system 12, the currently executing task is suspended in preparation for the next task." (*Id.* ll. 9-13.)

III. CLAIM CONSTRUCTION

"[T]he PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)).

Here, claim 1 recites in pertinent part the following limitations: "the manager task kills the client task when a current one of the client processes is not completed within a predetermined time period." Giving the independent claim the broadest, reasonable construction, the limitations require killing a task that has not completed within a predetermined period or time.

IV. AUTHORITIES ON TEACHING AWAY

"What the prior art teaches and whether it teaches toward or away from the claimed invention . . . is a determination of fact." *Para-Ordnance Mfg., Inc. v. SGS Importers Int'l, Inc.*, 73 F.3d 1085, 1088 (Fed. Cir. 1995). "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path

set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Teaching an alternative or equivalent method, however, does not teach away from the use of a claimed method. *In re Dunn*, 349 F.2d 433, 438 (CCPA 1965). "To coin a phrase, 'teaching a way is not teaching away.'" *Ex parte Shuping*, No. 2008-0394, 2008 WL 336222, at *2 (BPAI 2008) (quoting "Teaching a Way is not Teaching Away," 79 J. Pat. & Trademark Off. Soc'y 867 (1997)).

V. ANALYSIS

Here, as aforementioned, claim 1 requires killing a task that has not completed within a predetermined period or time. In contrast, Peters suspends a task that has not completed within a predetermined period or time. (FF. 7.)

The Appellants have shown me nothing in Peters that would have discouraged a person of ordinary skill from trying to incorporate suspending in Morwood in some manner. They have pointed to no caution that the suspending or tasks should not or cannot be used in conjunction with the killing thereof. Instead, I view Peters' suspending of a task as a mere alternative or equivalent teaching to the killing of a task. Therefore, the Appellants have not shown that Peters' suspending of a process teaches away from the claimed killing of the process.

Just because I believe that the Appellants have not shown that Peters' suspending of a process teaches away from the claimed killing of the process, however, does not mean that I believe that one of ordinary skill in the art would have found sufficient rationale to combine the disclosures of Morwood and Peters to yield a manager task that kills a client task when the execution of a client process therein is not completed within a predetermined time period, as recited in independent claim 1. That is a different issue, which I also answer in the negative. More specifically, I agree wholeheartedly with the following findings of Judge Homere.

> [T]he ordinarily skilled artisan would aptly recognize that the suggested combination is devoid of any suggestion or teaching to kill a computation object, a process or a task that is not fully executed within a specified period of time. To somehow conclude that Peters' teaching of suspending an executing task that is not completed within a specified period of time would have led Morwood's manager process to destroy such executing objects would require us to resort to unwarranted speculations.

rwk

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